

intercom

Journal of the Air Force C4ISR community ★ February 2006



remote & austere comm

- ▶ Keflavik's 3As keep mail moving in Iceland ▶ Wolfpack Comm poised on the peninsula
- ▶ Tactical, deployable ATCALS ▶ Making an impact: Kandahar Comm



4 From the **Top**: IT Lean Process streamlines acquisition
Ms. Renee Waggoner



6 Keflavik keeps mail on the move
Master Sgt. Kirk Baldwin



12 Kandahar Comm: Making an impact
Capt. James H. Cunningham



Cover themed, "Remote & Austere Comm" designed by **Ms. Karen Pettitt**

intercom

FEBRUARY 2006 ★ VOLUME 47, NUMBER 2

- | | | | |
|----|--|----|---|
| 4 | From the Top : Streamlined process helps warfighter
<i>Ms. Renee Waggoner</i> | 22 | Comm officer leads combat training unit
<i>Tech. Sgt. Scott Sturkol</i> |
| 6 | Keflavik's 3As keep mail moving in Iceland
<i>Master Sgt. Kirk Baldwin</i> | 23 | Password problems and solutions: Q & A
<i>Mr. Darren D. Heusel</i> |
| 8 | Korea's Wolfpack Comm
<i>2nd Lt. Lisa Schein</i> | 24 | Futuristic Air Force operations
<i>Capt. Nathan D. Broshear</i> |
| 10 | Deployable ATCALS sites to be completed within two years
<i>1st Lt. Dustin Nowak</i> | 25 | After the storm: Katrina updates
<i>News from around Keesler</i> |
| 12 | Comm works toward long-term solutions in Afghanistan
<i>Capt. James H. Cunningham</i> | 26 | Time Machine : 'Smitty' goes to Europe
<i>Mr. Gerald Sonnenberg</i> |
| 14 | Combat Search & Rescue
<i>Photo essay by Airman 1st Class Rachel Walters</i> | 27 | Civilian Focus : NSPS: A breakdown of the facts |
| 16 | Earthquake relief: Pakistan
<i>Photo essay by Airman 1st Class Barry Loo</i> | 28 | News Briefs : Minuteman comm, All-star award, TSP enrollment changes, Smart Operations 21, From the SECAF , eBooks, and IT showcase |
| 18 | Drop Zone
<i>Photo essay from the 4th Combat Camera Squadron, March ARB, Calif.</i> | 30 | Techno Gizmo : PHaSR: A laser gun that 'dazzles'
<i>Ms. Eva D. Blaylock</i> |
| 20 | 38th EIG civilians support the warfighter
<i>Mr. Darren D. Heusel</i> | | |
| 21 | Operation Ruthless Raven
<i>Master Sgt. Carolyn Gwathmey</i> | | |



Joint project yields solution to overburdened ATCALS assets **10**

THE JOURNAL OF THE AIR FORCE C4ISR COMMUNITY

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2004/2003



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Private carrier access

Who needs to be involved when we consider allowing a private carrier access to our on-base antennas for installation of repeaters and other devices?

In 1995 an executive order was issued allowing the government to lease space to private industry for commercial communications purposes. When your installation is approached with a request by a private carrier to either install an antenna or a repeater on your installation, you should assemble a team to evaluate all options and potential problems prior to agreeing to them entering your installation. The team you assemble should include contracting because they are needed to sign the actual lease/license binding the Air Force, the comm squadron, security forces to act as escort of maintenance personnel and also to provide force protection, the legal office for liability and indemnification issues and finally civil engineering because they own all of the real estate on the installation. We highly recommend you also contact AFCA/JA. We can provide you with useful guides and templates designed specifically to address this situation. Additionally, we can offer additional advice and guidance on structuring the agreement to provide the best deal for the Air Force and your installation.

Send your question to:

AFCA-JA@scott.af.mil
or call DSN 779-6060



**ALL IT SYSTEMS WILL BENEFIT
FROM THE STREAMLINED
ACQUISITION PROCESS
WITH THE ULTIMATE WINNER
BEING THE WARFIGHTER**

IT Lean process streamlines acquisition

Air Force phases out Certificate of Networkworthiness, Certificate to Operate

By Ms. Renee Waggoner
Policy and Governance Division
SAF/XCXP

PENTAGON — As the first step in changing how the Air Force develops and fields Information Technology systems, **Secretary of the Air Force Michael W. Wynne** signed a memo Nov. 28 that directs the use of IT Lean Re-engineering improvements.

Before the memo was signed, the Air Force often used numerous processes to develop, test, field, and support IT systems, increasing the potential for costly delays and failures in meeting warfighter needs. The IT Lean Re-engineering project began more than two years ago with a team of cross-functional representatives from across the Air Staff, major commands and product centers. The team's charter was to recommend improvements to the Air Force IT systems acquisition and sustainment processes to include the elimination of duplicative and non-value added steps.

Two of the areas the team recommended as needing change are the Certificate of Networkworthiness, or CoN, and Certificate to Operate, or CtO, processes. CoNs and CtOs are required for any system that operates on the Air Force Network to ensure it

will not have a negative impact.

With the full implementation of the IT Lean Process, the Air Force will phase out the use of CoNs and CtOs. These processes will be replaced in about six months by the use of the Security, Interoperability, Supportability, Sustainability, and Usability, or SISSU, checklist. It guides the program manager through all SISSU requirements throughout the program's lifecycle. All IT programs, including acquisition category and major automated information system programs will benefit from the early application and use of the SISSU checklist.

The IT Lean Process is streamlined to accommodate the need to rapidly develop and field IT. This process applies to IT systems in acquisition and sustainment including upgrades and moderniza-

The IT Lean process establishes clearly defined phases, activities and decision points and requires early and continuous stakeholder involvement.

tions, however the requirements of regulations still apply. The IT Lean process establishes clearly defined phases, activities and decision points and requires early and continuous stakeholder involvement.

The process has four distinct phases: **Define need, design, build and test and release and support.** There are also five milestone reviews: **Define need review, design review, test readiness review 1 and 2 and field readiness review.** Information required during each phase of the IT Lean Process is stored in the Enterprise IT Data Repository allowing stakeholders to continually post, share and validate SISSU information throughout a program's lifecycle.

The IT Lean Process is aligned with the Department of Defense Information Technology Security Certification and Accreditation Process required for all DoD-owned or controlled information systems that receive, process, store, display, or transmit DoD information. It does not obviate the need to execute the DITSCAP; however, the IT Lean Process and the use of the SISSU checklist can help the program team identify information requirements.

All IT systems will benefit from the streamlined acquisition process with the ultimate winner being the warfighter.

The Electronic Systems Center's Operational Support Systems Wing will immediately begin to use the IT Lean process with an Air Force-wide implementation by June 2006.

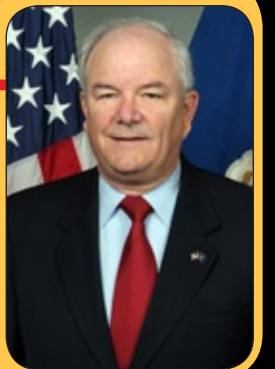
MEET THE SECRETARY OF THE AIR FORCE ★ MICHAEL W. WYNNE

Mr. Wynne graduated from the U.S. Military Academy and served in the Air Force for seven years, ending his career as a captain and assistant professor of astronautics at the U.S. Air Force Academy. He spent three years with Lockheed Martin selling the Space Systems Division to then Martin Marietta. For the next 23 years, Mr. Wynne held a variety of senior positions at General Dynamics, retiring in 1999 as Senior Vice President.

Prior to joining the Bush Administration, Mr. Wynne was involved in venture capital. He nurtured small technology companies through their startup phase as a member of the NextGenFund Executive Committee, and served in executive positions of two of those companies. In July 2001, Mr. Wynne was confirmed

as Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, and in May 2003 he was appointed as acting Under Secretary of Defense for Acquisition, Technology and Logistics. In this role, Mr. Wynne was the Principal Staff Assistant and adviser to the Secretary and Deputy Secretary of Defense for all matters relating to the Department of Defense Acquisition System, research and development, advanced technology, developmental test and evaluation, production, logistics, installation management, military construction, procurement, environmental security, and nuclear, chemical and biological matters.

Mr. Wynne has published numerous professional journal articles relating to engineering, cost estimating and contracting.





When the weather is cold and the terrain unforgiving, Keflavik's 3As know how to **KEEP MAIL MOVING**

By Master Sgt. Kirk Baldwin
HQ USAFE/A6XP

NAVAL AIR STATION KEFLAVIK, Iceland — Neither snow, nor rain, nor heat, nor gloom of night stays these couriers from the swift completion of their appointed rounds. So states the unofficial Creed of Postal Workers. The postal personnel stationed at the 85th Mission Support Squadron in Iceland are no different. They battle gale force winds, driving rain and snow blizzards in their daily rounds. Wait a minute, there are no Air Force postal personnel stationed in Iceland. So how do the 1,000 or so active duty Air Force folks get their mail? **As is in most communication squadrons, when no one else is around, the duty falls to the 3A personnel.**

To be fair, 3As do have some training in postal operations. Mostly, official mail training, but nothing like what is required to run a full blown mail-delivery facility. The 3A folks here, Tech. Sgt. Patricia Seja and Staff

Sgts. Desmond Douglas and Jocelyn Mosby, are not deterred; they've taken on this program, trained themselves, and provided mail delivery for the duration of their assignment, just as their predecessors have done for the past 10 years. At times it can be quite challenging, especially during peak rotational periods.

"Sometimes our folks are just beginning to find their niche, then they have to PCS," said Maj. Paul Walker, flight commander for 85th MSS/SC.

"Because we don't have the knowledge of the trained postal specialist, we have to train people as they arrive. Sometimes this can be like the old game of telephone, the message changes after being repeated a couple of times."

Maj. Walker said they have to do a lot of research to ensure postal regulations are always being followed.

"Postal operations can be very complex; there are Postal Service regulations, Department of Defense regulations, Air Force interpretation

of the aforementioned regulations, and since we're on a Navy installation, we have to adhere to their guidance as well."

To keep in the loop on important issues regarding the postal career field, the 85th MSS has developed a strong relationship with the HQ USAFE/A6 staff to include the postal branch and the 3A functional manager.

Chief Master Sgt. Kevin Call, USAFE's 3A Functional Manager, recently visited the Keflavik facility and is impressed by what this small team is able to accomplish.

"I was very pleased with the level of effort being put out by the people in this organization. They receive more mail than most APOs, don't have adequate space and have little to no training. However, all you hear from the customers is what a great job they're doing. They all work together as a team ensuring the mail moves no matter what the obstacle."

During his visit to Iceland, Chief Call let the 3Aers know that help is on the way.

"We have converted a position from 3A to 8M, to help out, and a new postal NCO will be arriving in March."

The Keflavik 3A Functional Manager, Senior Master Sgt. Willis Dean, is looking forward to getting a fully trained postal professional on the team.

"Having a fully trained postal specialist will allow us to continue the high level of service our customers deserve and expect."

They all work together as a team ensuring the mail moves no matter what the obstacle.



DEFEND THE BASE ACCEPT FOLLOW ON FORCES TAKE THE FIGHT NORTH

Wolfpack comm keeps radar fine-tuned, warfighters poised on the peninsula

By 2nd Lt. Lisa Schein
8th Communications Squadron

KUNSAN AIR BASE, Republic of Korea — A remote, overseas short tour can be the most rewarding yet challenging assignment in the Air Force. Airmen here soon find out exactly what it's like to be at the tip of the spear.

"Defend the Base, Accept Follow on Forces, Take the Fight North" is the mission here, and they're ready to go to war at a moment's notice.

One shop directly supporting this mission is the 8th Communications Squadron's radar maintenance shop.

These radar technicians are truly "hidden heroes," working behind the scenes to keep the Wolfpack's flying

mission on schedule.

The primary function of the radar maintenance shop is to provide Wolfpack and ROK air force radar coverage.

To keep the airspace and pilots safe, Kunsan's radar shop maintains a wide array of equipment supporting different Air Traffic Control needs.

The first of four core systems is the AN/GPN-20 Airport Surveillance Radar. It gives the ATC tower a 60 nautical mile, 360 degree view of the airspace. Matched with the ASR is the TPX-42 Identifier Friend or Foe, or IFF, radar system. This system provides an aircraft's identity, altitude and emergency codes if used. The ASR and IFF are critical because they are the only means ATC has to direct air traffic. The third radar system is

the AN/GPN-22 Precision Approach Radar. This system detects and tracks aircraft up to 20 nautical miles away and aids landing aircraft. It's vital for landings in bad weather or for aircraft that might be experiencing an in-flight emergency. Korean, U.S. Navy and U. S. Marine aircraft do not have Instrument Landing System capability, so the PAR is the only means used to safely land their aircraft. Last is the WSR-88D NEXRAD, a state-of-the-art Doppler weather radar. It's the primary weather radar for the southern region of South Korea. It gives pilots accurate weather information during pre-flight briefings. The NEXRAD also provides wing leadership weather forecasts so they can make decisions to move equipment in the event of adverse weather.

One of the biggest ingredients to a successful shop is training. The majority of Airmen have little or no experience with any of the four resident systems upon arrival to Kunsan. This situa-

tion can prove challenging to the incumbent team. The new technicians answered the call and stepped up to the task of learning new equipment in a relatively short amount of time. To aid in training the new troops, the shop implemented a night shift to augment training. Because of the high ops tempo, 12-month tour length and other constraints that accompany a short tour, it's difficult to maintain the required number of trained personnel, but Wolfpack Comm is making it happen.

Another challenge encountered during a remote assignment can be the lack of continuity. Programs such as training, documentation of inspections and Preventive Maintenance Inspections can easily fall to the wayside. When the current Airmen arrived earlier this year it was evident the shop needed some tuning. Some of the equipment was dirty and dilapidated. It has taken hard work to get the equipment back within standards, and the Airmen have done a great job in making the necessary improvements. The training program has been overhauled, and everyone is working diligently to get caught up in task coverage.

Good housekeeping and keeping the equipment up to standards not only helps the current team do its job, it's also important that each rotation make it better for the next

group of technicians.

"Our goal is to provide next year's regime with a good foundation. They will have an Operational Readiness Inspection to deal with, and I want to make sure they come in to a good starting point," said Tech. Sgt. Tyrone Cannady.

The shop's NCOIC knows that while not everything will be fixed before this year's rotation departs, there will be definite improvements in the way things are done.

"I really hope that our efforts now will help out future rotations," said Sergeant Cannady.

More and more, communications troops in every specialty are being called upon to bring the fight to the enemy, and the 8th CS is no different. Even though Kunsan is in a remote location, its mission is crucial to the security of the region.

"This mission is an important piece of the big picture, and we support every aspect of our mission. Defend the Base—we provide air surveillance to monitor the skies above us, Accept Follow on Forces—they'll use the radars to be guided here, Take the Fight North—they need radars to launch and guide the planes," said Sergeant Cannady.

"The mission here is 24-7, and we have to continuously be ready for the possibility of an act of war."



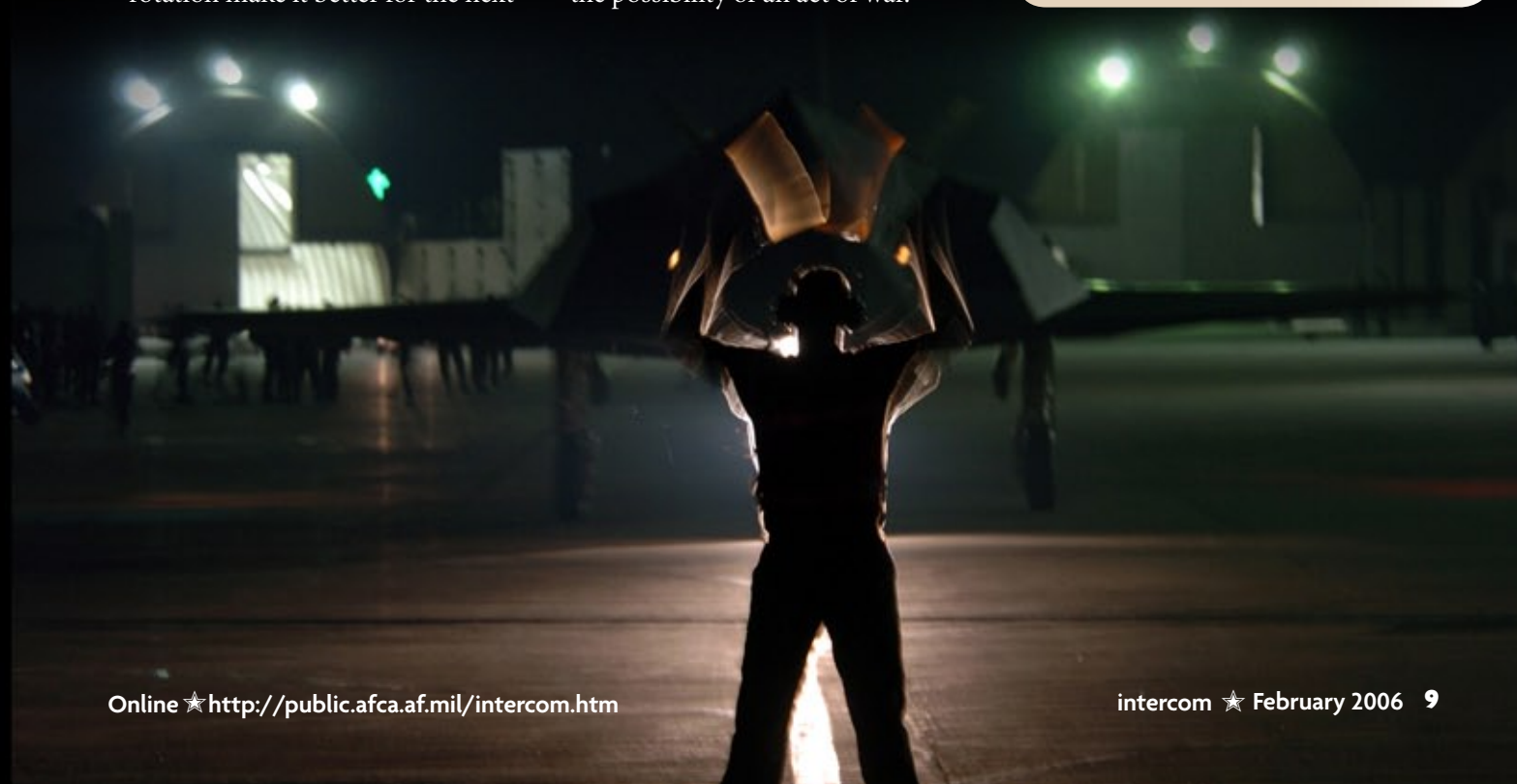
WOLFPACKCOMM

AN/GPN-20 — This airport surveillance radar gives the tower crew a 60-nautical-mile, 360-degree view of their airspace.

TPX-42 — This system provides aircraft identity (IFF), altitude and emergency codes if used.

AN/GPN-22 — A precision approach radar that tracks landing aircraft from as far as 20 miles out.

NEXRAD — A state-of-the-art Doppler weather radar, which gives pilots accurate weather information during pre-flight.



TACTICAL, DEPLOYABLE

Joint project yields solution to overburdened ATCALS assets

By 1st Lt. Dustin Nowak
609th Air Communications Squadron

SHAW AIR FORCE BASE, S.C. — Today's Air Force is accomplishing its mission on many fronts across the globe.

Often times the expeditionary environment means doing more with less, especially in the world of deployable communications.

When it comes to deployable Air Traffic Control and Landing Systems, the Air Force's current inventory is programmed to provide only six months of Air Traffic Control capabilities to the warfighter.

Currently the Area of Responsibility employs all but one of the Air Force's tactical ATCALS packages (TPN-19s from ACC, MPN-14s from the ANG and MPN-25s from AMC), virtually eliminating the possibility of rotation.

The 609th Air Communications

Squadron sought assistance from the Space and Naval Warfare Systems Center Charleston.

The joint venture developed a solution that takes Navy radar assets scheduled for removal along with some new engineering to develop a robust mid-term airfield system suite in-a-box.

The Suite

The ASR-9/GPN-27 was chosen because of its availability and supportability.

It was upgraded with digital capabilities, built in a pair of conjoined Sea-land containers for mobility, and named the Containerized Airport Surveillance Radar.

The Radar Approach Control was designed inside three Sea-land containers and called the Transportable RAPCON.

Micro En-route Automated Ra-

dar Tracking System and Enhanced Terminal Voice Switch, two Federal Aviation Administration and Air Force certified systems, were employed in the TRAPCON to expedite purchase and deployment.

The Transportable Transmit Receive Suite was developed using URC/CM-200 UHF/VHF radios to provide the ground-to-air communications.

It consists of four antenna towers and one Sea-land container with the tower separated to reduce radio interference. Finally, the Precision Approach Radar, still widely used by Army aircraft, is a GPN-22 system engineered in a similar configuration to the TPN-25.

After approximately a year of engineering, the suites will be installed at six sites around the AOR, giving each site ATC services comparable to that of stateside facilities with the flexibility to be moved or removed at a moment's notice.

The sites will be completed within two years and are scheduled to remain in place until U.S. forces fully withdraw from the AOR.



ATCALS SUITE-IN-A-BOX ELIMINATES NEED FOR PERMANENT AIR TRAFFIC CONTROL FACILITIES IN THEATER



Communicators re-route 6,000 feet of comm lines, increase network coverage

By Capt. James H. Cunningham
455th Air Expeditionary Wing
Public Affairs

KANDAHAR AIRFIELD, Afghanistan — Although Kandahar has been operating at full steam since the beginning of Operation Enduring Freedom, it continues to evolve.

Combat communicators here, alongside their fellow warriors serving in the on-going Global War on Terror, are transforming in step with the mission as part of Air Expeditionary Force 7/8.

“With their varied expertise and ‘can-do’ attitudes, my guys have leaned forward to take care of whatever the current mission calls

for,” said Capt. Paul Perron, communications flight commander for the 451st Air Expeditionary Group, who is deployed here from the 236th Combat Communications Squadron in Hammond, La. “We’re doing whatever it takes to build a communications infra-

structure that will support most any type of mission that may take up residence here.”

Given this communications infrastructure is owned by the National Guard, the communications team primarily comes from combat communications squadrons.

“Because of the training that CBCSs receive, and the environment in which we operate, we’re able to adapt to the ever-changing taskings faced at Kandahar,” said Chief Master

Sgt. David Hayes, communications flight superintendent, deployed here from 221st CBCS in Garland, Texas.

For instance, when a short-suspense installation project could not be staffed by an Engineering and Installation team, the comm flight re-routed more than 6,000 feet of comm lines. **The communications infrastructure can now accommodate any future expansion.**

Improvements have also spread to other areas of communications.

Communicators also completed a project that increased coverage of the land mobile radio service on base. The project, which saved a special three-person team from Qatar five days of work, involved installing 15 repeaters, testing them and then programming 300 receivers to work with the new system. “We basically read the books on how to do it and learned as we went,” said Tech. Sgt. Keith Sedwick, LMR manager for the

451st AEG Communications Flight, deployed here from the 33rd CBCS at Tinker AFB, Okla. “I always want to leave a place better than I found it to make it easier for whoever comes after us.”

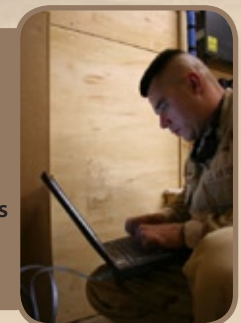
The improvements didn’t stop there. Communicators devised a way to increase the network’s bandwidth capability tenfold by upgrading and configuring two network switches.

“By re-channeling bandwidth, it allowed us to have fewer network problems and better support the mission,” said Staff Sgt. Jeremy Bellard, 451st AEG Communications Flight’s NCOIC of network management. “Improving systems here, especially

those used by operators, has a direct impact on the mission. Losing communications in this environment can literally mean life or death to the people we’re supporting,” he said.

This communications flight is making a lasting impact in the Global War on Terror, according to Col. Gerald E. Szpila, 451st AEG commander. “This isn’t about making temporary changes,” the colonel said. “We’re taking a long-term approach and making improvements that will last well beyond our AEF cycle. **The results not only benefit future rotations, they’re also laying a foundation for a better Afghanistan.**” (Staff Sgt. Marcus McDonald contributed to this article.)

No longer operating in an austere environment, Kandahar’s comm flight is shifting its focus toward long-term comm solutions.





COMBAT SEARCH & RESCUE

Photos by Airman 1st Class Rachel Walters / 354th CS



Pararescuemen from Kadena Air Base, Japan, perform an extraction on a “downed pilot” during Cope Thunder at Eielson Air Force Base, Alaska. The annual joint/combined air training exercise is run by the 353rd Combat Training Squadron at Eielson and Det. 1, 353rd CTS at Elmendorf AFB, Alaska.





EARTHQUAKE RELIEF PAKISTAN

Photos by Airman 1st Class Barry Loo / 30th SCS



Thousands of people living in northern Pakistan are still recovering from the Oct. 8 earthquake that measured 7.6 and killed an estimated 80,000 people. To date, the Air Force has airlifted more than 10 million pounds of relief supplies on 1,854 pallets to Pakistan using 49 C-130s, 44 C-17s and 52 contracted aircraft. Also, the U.N. Refugee Agency reports that relief items such as 20,000 tents, 322,000 blankets and 21,000 kitchen sets are aiding 40 refugee camps. They also have 20 mobile teams traveling to bring aid to “self-settled” camps.



A child walks through rubble of a home near Muzaffarabad. (Lower left) Pakistanis unload supplies from a Chinook helicopter in Bhonja.



Soldiers assigned to 212th Mobile Army Surgical Hospital care for a patient in Muzaffarabad while (left) Pakistani soldiers work with the U.S. military to unload supplies. Some 250,000 people currently live above the snowline and are being asked to relocate to lower ground for shelter.



Staff Sgt. Jacob N. Bailey / 4th CTCS

Paratroopers practice on land before getting airborne.



Staff Sgt. Jacob N. Bailey / 4th CTCS

All aboard onto a C-130 Hercules.



Senior Airman Richard Rose / 4th CTCS

Army Sgt. Arthur Walker donates a toy and gets to jump.



Staff Sgt. Jacob N. Bailey / 4th CTCS

There's no turning back now.

DROP ZONE

Members of the Army's 82nd Airborne land on Drop Zone Sicily, Fort Bragg, N.C., during the 8th Annual Randy Oler Memorial Operation Toy Drop Dec. 10. This international community relations operation is designed to collect toys for children of military families on Fort Bragg and Pope Air Force Base as well as those in the surrounding communities. Army paratroopers participate by donating a toy in exchange for a chance to make a non-tactical parachute jump with German and Irish military jumpmasters. Since its inception, Operation Toy Drop has collected and distributed more than 14,000 toys for families of Soldiers and Airmen as well as orphanages in the local community.

Photo by Senior Airman Richard Rose / 4th CTCS



Systems Telecommunications Engineering Managers 38th EIG civilians deploy to support warfighter

By Mr. Darren D. Heusel
72nd Air Base Wing Public Affairs

TINKER AIR FORCE BASE, Okla.—Military people aren't the only ones doing their part to support the warfighter in the Global War on Terrorism.

Seven Department of Defense civilians from the 38th Engineering Installation Group here deploy year-round to Southwest and Central Asia and just recently deployed in November.

Their job is to visit each base managed by U.S. Central Command Air Force, which supports Operations Enduring and Iraqi Freedom.

The 38th EIG civilians have been deploying to USCENTAF since 2001, typically serving one-month deployments for each Air Expeditionary Force rotation.

What they do

The 38th EIG engineers, who are referred to as Systems Telecommunications Engineering Managers, or



Civilian communicators survey air traffic control and radio equipment as part of their duties.

STEMs, plan the long-term communications infrastructure at each base, while initial communications at USCENTAF locations are installed by combat communications units such as Tinker's 3rd Combat Communications Group.

The STEMs plan for a number of different enhancements such as buried fiber optic cable, base network hub locations and sizes, and telephone systems. Their efforts allow other combat communications units the ability to provide a more robust and reliable network elsewhere.

The STEMs ensure their plans allow for a smooth transition to permanent communications as combat operations continue and permanent buildings are constructed to replace temporary structures.

Where deployed Air Force personnel operate and maintain a base network, the STEMs must also ensure that installed systems are similar to what those personnel are familiar with at their home station.

"[Basically] we do communication planning for all Air Force locations worldwide," said Mr. Steve Reynolds, chief of the 38th EIG Special Operations Branch. "We document existing conditions, what the target Air Force communications architecture is and what needs to be done to bring the existing conditions up to the target."

In addition, Mr. Reynolds said, his folks provide estimated costs by fiscal year to allow major commands to budget for their requirements.

"We also have specialized contracting available to contract out the installation, provide commercial communication services, and operation and maintenance of base communications," he said.

A job well done

"Reliable and efficient communications are key to the success of any military operation. We are all very proud of our Air Force civilian and military members that deploy in the defense of our nation and take the Global War on Terrorism fight directly to the enemy," said Brig. Gen. Larry Spencer, vice director of the Oklahoma City Air Logistics Center, who paid a visit to the group before they left.

As one civilian stated: "Deploying with our [active-duty] troops has shown me that I work with the best communicators in the world. Being deployed creates an understanding (first hand) that strengthens a person's desire to assist in providing the best communications and information technology services possible for quality-of-life issues and meeting the needs of the warfighter."



Drug agents make random inspections on military bases.

Some people try to smuggle drugs through the mail system.

By Master Sgt.
Carolyn Gwathmey
HQ Air Force Office of Special
Investigations Public Affairs

ANDREWS AIR FORCE BASE, Md.—The Air Force Office of Special Investigations is heading up Operation Ruthless Raven, a joint task force effort to combat drug smuggling by increasing random inspections and educating military members.

"The goals of the Ruthless Raven Task Force are to identify vulnerabilities in the Air Force transportation and mail systems and to leverage internal and external capabilities to counter the threat of drug smuggling," said Col. Edward Hagerty, OSI's Ruthless Raven task force commander.

Drugs on aircraft

Several incidents in the past year have brought to the forefront a need to focus more attention on countering drug smuggling by people using military aircraft. Two events that stand out:

► first, 35 pounds of cocaine were discovered aboard a C-17 based out of Charleston, S.C., that was en route from Colombia to Texas when the drugs were found; and second

► a C-5 from Stewart Air National Guard Base in N.Y., arrived home from Germany with 290,000 tabs of ecstasy.

During October, when this new program kicked off, OSI agents at seven stateside bases, supported by Security Forces personnel and agents from fed-

The task force is an internal Air Force element and a joint element comprised of Air Force, DoD and other federal law enforcement agencies. The Air Force element has representatives from OSI, Security Forces, Air Force Reserve Command and Air National Guard. The joint element includes the Naval Criminal Investigations Service, Army Criminal Investigations Division, U.S. Coast Guard, Customs and Border Protection, Immigrations and Customs Enforcement, Drug Enforcement Agency and U.S. Postal Inspectors. The task force works with Air Mobility Command and U.S. Transportation Command to identify high-risk target areas. It identifies overseas locations where narcotics are readily available and matches them up with the numbers of military aircraft transiting those locations. Once that data is compiled, the task force analyzes the results, determines the target areas and selects flights to be inspected.

eral and local law enforcement agencies, conducted inspections of carefully targeted aircraft arriving from overseas locations. U.S. Customs personnel seized several items of contraband, but no narcotics were found.

"That doesn't mean we can afford to take our eye off the ball with this," said OSI Commander Brig. Gen. Dana A. Simmons. "That's why the next phase of sustained random inspections will be an important contribution to keeping our Air Force drug free."

Targeting the mail system

Operation Ruthless Raven will also target those using the military postal service for illegal drug smuggling.

For instance, U.S. Postal Inspections Service agents in Florida intercepted a package with Ketamine, a narcotic, en route to Kunsan AB, Korea. In another case, customs officials intercepted a package from Mississippi to Yokota AB, Japan, containing 40 grams of marijuana.

Education is key

Along with inspections, another important component of the task force's efforts will also involve education.

"In the wake of 9-11, we (OSI) and other investigative units focused more intently on our counterintelligence and antiterrorism mission," Colonel Hagerty said. "While this focus was necessary ... we need to strike a balance between the two missions [of drug interdiction and antiterrorism]."



COMM OFFICER LEADS COMBAT TRAINING UNIT

This marks the first time a non-Security Forces officer commands the team who provides wartime skills

By Tech. Sgt. Scott T. Sturkol
421st Combat Training Squadron

FORT DIX, N.J. — Walk into Lt. Col. Lisa Richter's office and you'll see a photo of her at a Middle East deployment site from the mid-'90s.

To her it's a constant reminder of both the Air Force mission of her past and the work she has ahead of her as the first non-security forces officer ever to command the 421st Combat Training Squadron here.

She is a communications officer who began in July to lead this "selectively manned" unit, which is responsible for preparing troops for contingency operations.

The 421st CTS hosts Eagle Flag, an Air Force Chief of Staff-directed exercise that focuses on mission rehearsal for air base openings. The unit also teaches the Air Mobility Command Anti-terrorism Level II Course, the Phoenix Raven Course for Security Forces personnel who are assigned to protect deployed aircraft and general military contingency skills.

Even though Colonel Richter

spent most of her career working with Airmen from different facets of the communications career field, her focus now is on helping all Airmen.

"Throughout my career, I've been fortunate enough to have done a variety of things both in and outside the communications career field," Colonel Richter said. "All of these experiences have helped me develop the professional and personal skills that I've been able to draw on here in the 421st."

In her command philosophy, she said she has three elements she uses for leadership: values, balance and managing change.

"We can never lose sight that we are a values-based Air Force," Colonel Richter said. "You have to walk the walk and stick to your core values of excellence, integrity and service."

Her vision of balance refers to Airmen working toward developing the personal and professional aspects of their lives into the best "whole person" they can become.

"It means making the effort not to neglect any of the important facets of your life. Balance is achieved through three key areas. Mental balance is achieved through taking advantage of academic growth opportunities. Physical balance is at-

tained by maintaining good fitness and adopting a healthy lifestyle, and spiritual balance can be found by seeking out the things that give you inspiration and help you find your inner strength."

The managing change element of her command philosophy can often be the most challenging.

"In today's world, the ability to adapt and change is critical for success. I always challenge my people to anticipate and plan for change. I want them to take the initiative, be innovative and seek creative solutions. We can and are making tangible impact to training."

That command philosophy, along with her experience is helping the 421st CTS transform.

"We are developing the Contingency Response Group, or CRG, Formal Training Unit, which will provide CRG Airmen with specialized training to operate in an uncertain environment regardless of the follow-on mission." This will be held in concert with follow-on force modules and theater-assigned forces.

She explained that the content of the courses are continually updated based on feedback from those deployed.

"As soon as our adversaries modify their tactics, we're able to update our training as well."

AMWG/EOS
421st COMBAT TRAINING SQUADRON

To read more about the colonel and her mission, see the *intercom* online

Lt. Col. Lisa Richter

PASSWORD PROBLEMS AND SOLUTIONS

Q&A

with Mr. Ammon Doc Leeson, PACAF SC

The average user today has 40 personal and professional accounts requiring usernames and passwords. So ...

WHY CAN'T I USE THE SAME PASSWORD FOR ALL MY ACCOUNTS?

Because that's one of the most dangerous things you can do. If your government/corporate logon account becomes known to anyone else, then your employer's and all of your coworkers' security and confidentiality are at risk (as well as your own data and privacy). Also, many Internet sites have different rules for passwords, so it would be difficult if not impossible to use the same password for ALL of your accounts, but for your own protection, use a different password for each and every account. And never, ever use the same password that you use for your government or corporate network authentication, for any other account.

OK, BUT WHY DO I HAVE TO CHOOSE SUCH DIFFICULT PASSWORDS? I WORK IN A SECURE ENVIRONMENT.

There are very good reasons for using difficult passwords: ▶ **Insider threat:** All it takes is one disgruntled user (or someone willing to sellout for a price) to copy user account data from the network or put Trojan horse virus software on the network.

▶ **Social engineering:** Skillful bad guys can gather lots of data (user names, passwords, etc.) over the phone, at social events, or in the workplace, by pretending to be someone else. ▶ **Dumpster diving:** Old backup tapes, computer hard drives and discarded floppy disks can provide a wealth of information for

those wanting to exploit our networks for fun, profit or politics. ▶ **Unintentional damage:** Average users can introduce Spyware, worms or other malicious software to the network by surfing the wrong web site or bringing it in from home. Easy passwords can be cracked in minutes with an average desktop computer.

WHY DO I HAVE TO CHANGE MY PASSWORD SO OFTEN?

Strong passwords may take months or years to crack, even with sophisticated computer hardware and software, but it can be done. While changes are normally made every 90 days, known or suspected security incidents, such as a hacker intrusion or other type of compromise, may initiate a widespread change of passwords. Here are some tips to help with passwords:

▶ **Don't check the remember box:** Many programs and/or dialog boxes offer a checkbox to remember your password. This is convenient but very insecure. Always enter your password manually.

▶ **Use an uncommon phrase:** Use an uncommon phrase that you can remember, but replace some of the letters with numbers or special characters. For instance, "k1\$\$thew@!!" (kiss the wall), or better yet, "3k1\$\$thew@!!4" (kiss the wall between a pair of numbers). Remember this: if it looks like something that someone might add to dictionary definition file, then it's probably not a good strong password. Dictionary definition files are used with hacker tools to do "brute force" attacks. These dictionary files contain common words, names, slang and even many common password phrases and keyboard combinations such as; "Pa\$\$w0rd," "1qaz@WSX," (type it) and "Bi!!yJ0e."

▶ **Out of sight:** If you must keep a list of personal Internet and credit card passwords, always keep the list secure and never let it out of your possession.

Smart Card Logon success story

STRATCOM becomes password free

The folks at U.S. Strategic Command located at Offutt Air Force Base, Neb., have been giving positive feedback to officials since they've been required to log on to computers using only their Common Access Card. The comm team there spent four months prepping base members for the change and since Nov. 29 they've not been able to access their computer accounts with user IDs and passwords. The Air Force Portal was one of the first systems to successfully enable the Smart Card Logon, but it still lets people log on the old way. Once the Air Staff approves Air Force-wide implementation, you too can soon be password free.

— Capt. John Pope, AFCA

Staff Sgt. Jennifer Thielke,
USSTRATCOM J6 staff

Demos, mock exercises show futuristic Air Force operations

By Capt. Nathan D. Broshear

505th Command and Control Wing Public Affairs

HURLBURT FIELD, Fla. — The Air Force Agency for Modeling and Simulation, the Training Systems Product Group and the Distributed Mission Operations Center showcased the latest military technology used to train joint forces during the Interservice/Industry Training, Simulation and Education Conference held in Orlando, Fla. in late November. Some of the demonstrations included a simulated laser weapon that could be targeted by a Predator Unmanned Aerial Vehicle, along with specialized joint virtual training sponsored and coordinated by U.S. Joint Forces Command. The special events linked training simulations that included 52 distinct participants from locations around the world and on the conference floor.

Joint forces countered virtual insurgents, rescued personnel, contained a chemical attack and targeted the enemy forces in a simulated battlespace while conference attendees watched on giant screens in the center of the convention.

"The capability to have almost any military unit train with other forces that they would interact with in a combat situation in virtual reality is on the horizon," said Maj. Ralph Gordon, Director of Operations at the 705th Exercise Control Squadron.

VIRTUAL FLAG

Actually that horizon is already here as officials wrapped up the first nationwide virtual reality exercise for fiscal year 2006 led by DMOC in early November. Virtual Flag, hosted at Kirtland AFB, N.M., is an exercise that creates realistic and cost-efficient simulated battlespace using networked simulators across the United States and at DMOC.

"We're working to make virtual exercises as simple as using the simulators at your home base and getting into the fight," said Lt. Col. Gordon Phillips, the 705th Exercise Control Squadron Commander. "No more long TDYs away from home, airline and billeting costs, and best of all; you'll be home for dinner every night."

Virtual Flag 06-1 marked several firsts to include Navy E/A-18G aircraft crews and Guardsmen who flew enemy "MiG" missions while electronic attacks on command and control systems wreaked havoc on communications. DMOC also unveiled its "Multi-Level Security solution," which is a computer protocol that will allow exercise planners to add future weapons systems and new scenarios to challenge participants.



simulation helmet



simulated gunner



PIG TRAINING



AWACS SCENARIOS

After the STORM UPDATES

MAD DUCKS HELP THEIR OWN

KEESLER AIR FORCE BASE, Miss. — After Hurricane Katrina roared through the base Aug. 29, it left one-third of the homes belonging to 333rd Training Squadron members in ruin. And even though its 140 members had helped clean up the base and restore its comm infrastructure, they really came together when it was time to attend to personal matters, said the commander, Lt. Col. Randy Coats. He said he declared that "nobody will clean their house alone," and so for the next several weeks civilians, active-duty troops and contractors helped more than 50 families by hauling out debris. Everything from rugs to downed trees to sheetrock and household goods were cleared out. Colonel Coats said that based on the going labor rates in the community, they were able to save the families \$175,000 in cleanup costs.

"The 'Mad Ducks' response to this disaster is a small example of the overall recovery efforts," said the colonel. "But it's a small example that demonstrates in a big way the qualities that make our career field so strong. We not only saved our families money, but were also able to have students back in class within 45 days. Impressive numbers; but not nearly as impressive as the spirit and determination it took to achieve them."

Members of the unit also went into demolished neighborhoods for cleanup duties and also to try to recover personal items. As people trickled back into the area, unit members worked every day for a month to provide comm services and continue cleanup efforts.

"After such a devastating storm, one might ask what do you do next?" said the colonel. "Well, the men and women of the 333rd TRS knew what to do. By pulling together, we brought meaning to the word 'team.'"

— Maj. Greg Kendrick, 333rd TRS



Tech. Sgt. Greg Moore synchronizes training efforts for two "interrupted" classes.

BEING FLEXIBLE

KEESLER AIR FORCE BASE, Miss. — Even though Tech. Sgt. Greg Moore, an instructor with the 333rd Training Squadron here, lost all his belongings, got married and received orders to move all during the hurricane aftermath, he put his life on hold to go TDY for six weeks to teach much needed classes. Not only that, but he then worked with Tech. Sgt. Nevin Joplin, another instructor, to synchronize two classes that are integrated in the deployed environment, but not in the classroom. Now the Theater Deployable Communications classes for Data Systems and Transmission Systems are integrated in the classroom. Sometimes it takes Mother Nature to force a change and thanks to these two NCOs, comm students are better for it. Great job!

— Lt. Col. Randy Coats, 333rd TRS/CC

MAIL CALL

Within 10 days after the hurricane, Keesler's postal operations were up and running again thanks to a deployed team from the Air Education and Training Command!

'Smitty' Goes To Europe!

A brother captured. A leader of women. A heart in love.

By Mr. Gerald Sonnenberg
AFCA Public Affairs

SCOTT AIR FORCE BASE, Ill. — Women's service to this nation during World War II is often represented by the image of "Rosie the Riveter," but not all of them worked in the factories.

One of those 350,000 "Rosies" to enlist was 24-year-old Viola B. Smith who became a communications officer serving in Europe. During a recent communications alumni gathering, she shared memories of her time in the war.

The now-80-something Grant, Fla., native said she volunteered because her brother, a welder, was one of 1,150 civilian contractors captured on Wake Island by the Japanese in 1941 after a 15-day siege.

"I didn't hear from him, and I wanted to do something to bring him home," she said. "I wanted to join something that went overseas."

At first she joined the WAACs (later the Women's Army Corps) in 1944 with the desire to be a first sergeant. Instead, "Smitty," as she came to be called, was commissioned a second lieutenant and became the company commander of dozens of young women. Soon, 500 WAACs and 18,000 men were crammed onboard the refitted troopship RMS Queen Elizabeth sailing out of New York and headed for Europe.

Without an escort, the ship relied on its speed to protect its human cargo, and the QE1 arrived about a week later in Scotland, on June 6, to the news that the invasion of Europe had begun. Thirty of the women, including Smitty, were assigned to the 5th Army Airways Communications System based in London. The unit provided communications and air traffic control for the 8th Air Force. Smitty said their first weekend in London was spent with their "heads under their pillows" as "buzz



Viola B. (Smith) McClellan
"Serving my country ...
was a big achievement for
me. We all had a job to do
and [we] stayed with it
until it was over —
mission accomplished."

bombs" or German V1 rockets flew overhead. Some time later, one of these bombs exploded in Hyde Park sending shards of glass flying and two of her troops to the hospital. The two were later awarded the Purple Heart.

Smitty organized the women into a 5th AACs company performing teletype operations, and working as drivers and administrative specialists six days a week. Smitty used a razor blade to censor mail dealing with sensitive military issues that soldiers wrote home about. They worked long hours while in London seemingly dodging the V1s then V2s more often as the Allies pressed their advantage across the Channel.

Many GIs found love in England, as did Smitty. Capt. Dewey McClellan was an AACs pilot, and their whirlwind romance resulted in a wedding. Dewey stood in his uniform and Smitty wore a dress from the Red Cross that she had to turn in afterward for another bride to wear. Her shoes were handmade by another soldier, and the

members of her company saved their ration cards for three months so the couple could have a cake.

After VE day in May 1945, Smitty and others helped set up the headquarters in Wiesbaden, Germany, before heading home on a B-17 in the fall. Dewey was the pilot. But her homecoming was bittersweet.

"I found out after the war that my brother never left Wake," she said. "He was one of 98 civilian prisoners gunned down by the Japanese in October 1943."

Back in the United States, she followed her husband where his active duty assignments took them, and the family eventually settled in Midwest City, Okla. Dewey served as the newsletter editor, historian and amateur radio coordinator for the AACs Alumni Association. He passed away in 1997.

NSPS: Training requirements, Proposed rating levels

Scott Air Force Base is one of the places scheduled to implement DoD's National Security Personnel System this spring, and already more than 3,000 supervisors and employees have received Change Management Training. That's just the start though for civilians who will need to understand the program before it officially begins. Here are the courses people should look for at their bases:

Employees

- » NSPS 101
- » Human Resource Elements for Employees
- » Performance Management for Employees

Managers & Supervisors

- » NSPS 101
- » Human Resource Elements for Managers/Supervisors
- » Performance Management for Managers/Supervisors
- » Pay Pool Management for Managers/Supervisors

Human Resource Specialists

- » NSPS 101
- » Human Resource Elements for Managers/Supervisors
- » Adverse Actions and Appeals
- » Labor Relations

Pay Pool Managers/Administrators

- » Pay Pool Management

Senior Leaders

- » Senior Leaders Forum

Town Hall meetings are also being incorporated at bases, and you can see the slides at:

www.cpms.osd.mil/nsps/

What makes a super civilian?

Previously employees have been rated as "outstanding," "exceeds fully successful," "fully successful," "minimally successful" or "unacceptable/unsatisfactory" or rated based on a pass-fail system. Now employees will have these new rankings:

ROLE MODEL

Almost always meets the standards described by the Role Model benchmarks.

EXCEEDS EXPECTATIONS

Almost always meets the standards described by the Valued Performance benchmarks and typically, but less than almost always, meets the standards described by the Role Model benchmarks.

VALUED PERFORMANCE

Almost always meets the standards described by the Valued Performance benchmarks.

FAIR

Almost always meets the Valued Performance benchmarks, but only as a result of guidance and assistance considerably above that expected at the Valued Performance level.

UNSUCCESSFUL

Performs below the Level 2 rating, or fails the Standard Performance Factor in the performance of a single assignment, where such failure has a significant negative impact on the mission or where failure to perform could result in death, injury, breach of security, or great monetary loss.

BENCHMARK DESCRIPTORS

To determine how employees and supervisors will be rated, there are some basic standard performance factors defined by benchmark descriptors. They differ for each pay band and for the Career Group Architecture. These fall under the Performance Management area of NSPS which are currently being revised at DoD.

CAREER GROUP ARCHITECTURE

There are four basic areas that civilian jobs fall under. Pay banding structures are a bit different for each of these areas because they're based on a different skill set. They are:

Standard Career Group

- » Professional/Analytical
- » Tech/Support
- » Student Employment
- » Supervisor/Manager

71%
of the workforce

Investigative & Protective Services Career Group

- » Investigative
- » Fire Protection
- » Police/Guard
- » Supervisor/Manager

6%
of the workforce

Scientific & Engineering Career Group

- » Professional
- » Tech/Support
- » Supervisor/Manager

18%
of the workforce

Medical Career Group

- » Physician/Dentist
- » Professional
- » Tech/Support
- » Supervisor/Manager

5%
of the workforce

sources: Ms. Deanna Glover, Scott AFB and the NSPS Website

KUDOS

MINUTEMAN COMM: The 91st Space Wing completed the last modifications to its Minuteman minimum essential emergency communication network at the Oscar-01 missile alert facility in the Minuteman missile complex at Minot Air Force Base, N. D. Nov. 11. It marks the final modification to the last of 50 launch control centers



in 20th Air Force. Other bases where modifications took place include Malmstrom AFB, Mont. and F.E. Warren AFB, Wyo.

"This brings our higher authority warfighting communications systems into the 21st century," Col. Dan Adams said. Colonel Adams is the 91st SW commander.

The \$250 million emergency communication system enhances the communications capability during an unconventional strike against the

United States. In 1999, the Chairman of the Joint Chiefs of Staff directed development of the network to replace the survivable low frequency communications system installed in 1962.

Kent Huebner, a network technical advisor and communications engineer from Hanscom, said the new system also provides a Milstar satellite capability in the extremely high frequency range with transmission security the old system did not have. (Staff Sgt. Carla Williams, 5th BW/PA)

ALL-STAR AWARD: The Defense Information Systems Agency announced that it has received a 2005 "Network World" Enterprise All-Star Award for innovative applications of network technology. DISA was chosen by "Network World" magazine for its use of business service management technology to centralize control of network infrastructure to facilitate greater efficiency, and ultimately, process maturity.

Instead of managing IT as indi-

vidual components comprised of servers, applications or networks, DISA has maximized software technology to create views of logically interrelated elements that collectively deliver IT services crucial for the warfighter. This has greatly enhanced situational awareness, substantially reduced costs and increased end-user satisfaction. (DISA/PA)

NEW DEVELOPMENTS

TSP ENROLLMENT CHANGES: Effective in 2006, civilian and military employees are no longer subject to a percentage limit on the amount they may contribute to a regular Thrift Savings Plan account. They may contribute the full amount allowed by the Internal Revenue Service annual elec-



tive deferral limit, which is \$15,000 for 2006. Open seasons were eliminated July 1, 2005, so employees may start, change, stop or resume their TSP contributions at any time (except those in the six-month non-contribution period following a financial hardship in-service withdrawal).

TSP offers investors the chance for lower taxes each year they contribute while not having to pay taxes on earnings until they reach retirement. Eligible employees can take out loans, make in-service withdrawals from their TSP accounts, and keep their account even if they leave military or federal civilian service. Specifics about the changes available at www.tsp.gov. (AFNS)

SMART OPERATIONS 21: The Air Force used the best parts of several civilian efficiency programs to develop an Air Force-unique process-improvement program called "Smart Operations 21," Secretary of the Air Force Michael W. Wynne said.

He explained how the program will take the Air Force forward in a journey of self-improvement.

"The name came from a convocation of the senior operators in the field who thought we could continue our journey into higher quality and better performance by using a term that would relate to airfield operations, intelligence, surveillance and reconnaissance operations, unmanned aerial vehicle operations or cyberspace operations," he said. "So Air Force Smart Operations 21 is the ideal project name for this journey we are embarking on."

The program is based on both Lean and Six Sigma business process improvement tools. Six Sigma deals primarily with quality control and tolerances. A process is made lean by re-engineering it to eliminate steps that add no value to the end product or by combining process steps to save time. These tools were developed chiefly in the private sector to focus on increasing value to customers, save time and money, reduce waste and improve quality.

For instance, moving tools and supplies closer to a work area to reduce the number of footsteps workers must take to complete their jobs.

It's also about minimizing "batch and queue" processes. In manufacturing, a raw material may need to pass through several workstations before it becomes a final product. The initial workstation may drill a single hole or

make a single cut in a batch of several thousand pieces of raw material.

The semi-finished parts then go into a queue, waiting for the next step in the process. Once the part is cut or drilled, it loses its value as raw material, but has gained no value as a final product. So, it becomes a financial liability. A leaner process would attempt to move each part through the system in one pass, if possible, to eliminate warehousing of unfinished parts.

Secretary Wynne said the Air Force will use Smart Operations 21 to increase the efficiency of the processes it uses to develop its own products. For instance, by creating work cells where aircraft move through at a pace of one every two days, the Air Force eliminates having large numbers of aircraft lined up waiting for somebody to get to them to apply the next step in the process. Now aircraft can move quickly from cell to cell. Paying attention to individual processes optimizes work within a cell. Tools and parts are made available to workers locally, so they don't have to travel to get them.

Secretary Wynne said the Air Force needs a strategy to understand and optimize the basic processes around which it organizes. Smart Operations 21 will be the centerpiece of the strategy. (Staff Sgt. C. Todd Lopez/AFPN)

From
the **SECAF** Michael W. Wynne

"We bring the best equipment we can muster through a wonderful industry partnership, but without the bravery, persistence and indebtedness of the Airmen manning it, it wouldn't be worth very much. (The trip to Southwest Asia recently) made me very proud to be called the secretary of our Air Force."

eBooks!

Easing the reading load for students



Ask anyone who has been to the Air and Space Basic Course or Squadron Officer College what they remember most about their experience, and one of the items they're sure to mention is the amount of reading. Each student receives more than 800 pages of course material.

So the communicators at Air University and the instructors at SOC took a page from corporate America where electronic books, or eBooks, are replacing handouts and other printed training material. After taking a hard look at the economic and logistical benefits, it just made sense to make the change.

eBooks are small, portable, lightweight reading devices about the size of a standard hardcover book that offer an alternative to paper. Besides being more portable than an 11 inch stack of handouts, SOC thought there was the potential to reduce its printing costs of about \$400,000 per year. After a pilot study showed 75 percent of students who tested the product rated them as excellent or better, SOC decided to roll them out in both courses.

Since August 2005, SOC has reported a savings of about \$34,000, and it expects to see even more savings this fiscal year as it nearly eliminates 8 million pages of printed text. Additionally, the flight commanders will be able to save more than 2,000 hours each year that they had previously spent unpacking, sorting, performing quality control, updating, and distributing books to the classrooms. Another advantage they offer over paper is that they give curriculum developers the power to update course material at any time during the course. The students simply attach their devices to an "e-Content Distribution Node," a five-port switch found in each classroom, and refresh their content in about 10 minutes.

These devices allow students to do more than simply read through page-after-page of text. They're also able to do a text search, highlight important passages, underline, circle, and write short notes directly onto the screen. One can then plug the device into a USB port and download those notes to an image file for printing or later review. So ultimately, this technology is proving itself to be a worthwhile, cost saving addition to the classrooms. This is just an example of the kind of innovative, learning-enhancing technology Air Education and Training Command is bringing to the Air Force. (AETC/SC)

IT showcase

"Innovative technology" was the operative term when AETC showcased its information technology initiatives at the AFCEA and SAF/A6-sponsored Air Force IT Day in November. Representatives from AETC/SC, Air University, and Sheppard AFB's 82d Training Wing, presented vendors with ongoing and potential training

enhancement opportunities. Such new-generation ideas as WiMAX to provide a blanket of wireless connectivity across a base, Podcasting, wireless classrooms, student workstation remoting, using streaming video to store and broadcast lectures, and wireless rugged laptops for training mechanics, gave vendors an idea of how the command is aggressively modernizing the Air Force training environment.

DAILY CHECKS



Airman Julianne Trulson / 435th CS

Staff Sergeant Brian Sheldon performs a daily preventative maintenance inspection on a satellite communications van during exercise Wing Lightning at Ramstein Air Force Base, Germany, in November. He's a member of the 1st Combat Communications Squadron.



Techno
Gizmo

A laser gun that 'dazzles'

PHaSR

What is it?

It's the Personnel Halting and Stimulation Response, or PHaSR, which is a laser technology weapon that will be the first man-portable, non-lethal deterrent weapon intended for protecting troops and controlling hostile crowds.

How does it work?

The weapon, developed by the Air Force Research Laboratory's Directed Energy Directorate, employs a two-wavelength laser system and is a hand-held, single-operator system for troop and perimeter defense.

The PHaSR is about the same size and weight of a fully loaded M60 machine gun, around 9 kg, but shoots a low-power beam of laser light instead of bullets. The light it generates is capable of temporarily impairing an individual's vision, much like the disorienting glare one sees when looking into the sun.

Laser weapons that could blind were banned under a 1995 UN convention: the Protocol on Blinding Laser Weapons. The PHaSR is intended to "dazzle" an enemy; it is also being fitted with a range-finding device to make sure that the amount of energy received is not too bright.

Who's building it?

The first two prototypes were built here last month and delivered to the laboratory's Human Effectiveness Directorate at Brooks City Base, Texas, and the Joint Non-Lethal Weapons Directorate at Quantico, Va. for testing.

"The future is here with PHaSR," said Capt. Thomas Wegner, program manager. Captain Wegner is also the ScorpWorks flight commander within the laser division of the energy directorate here.

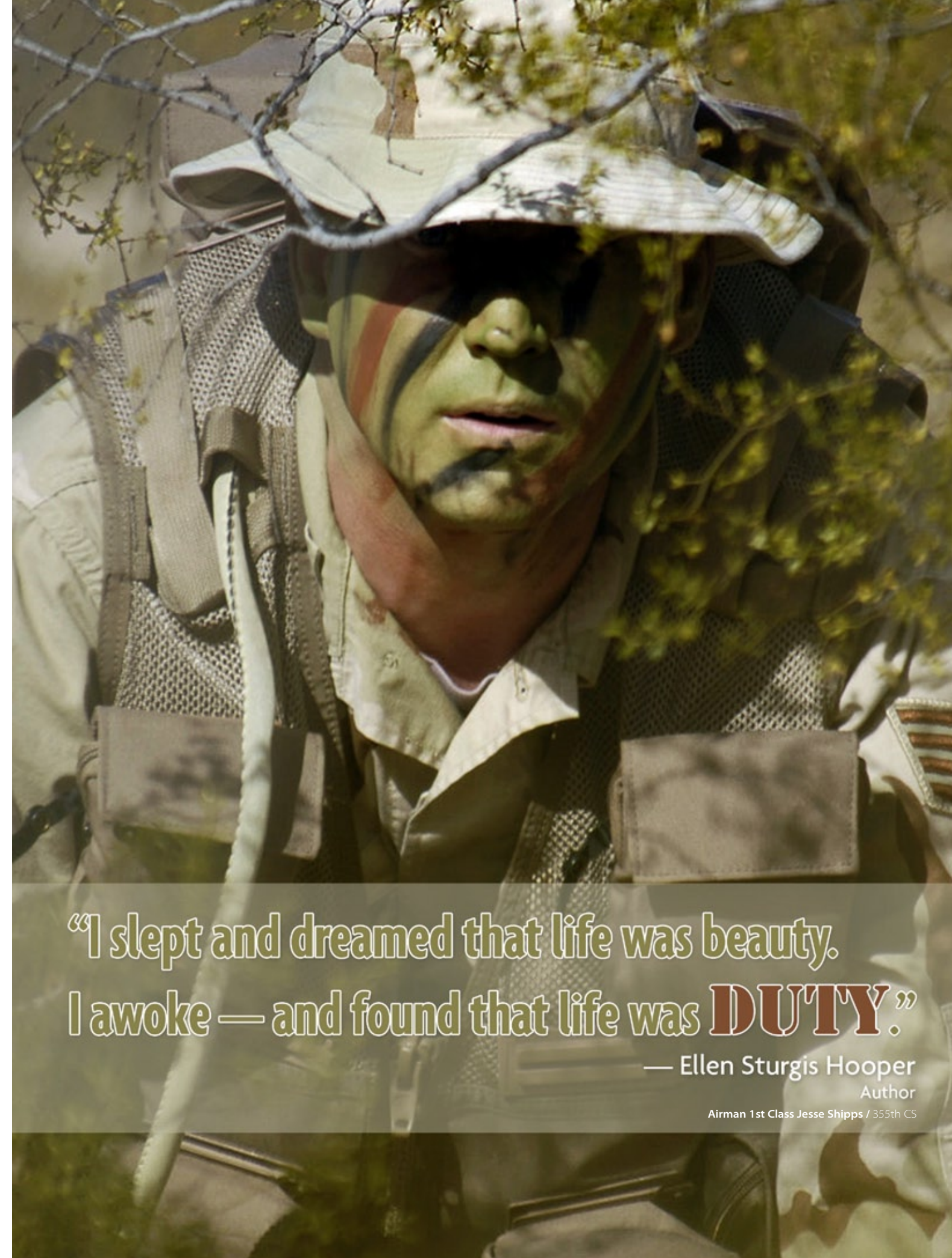
ScorpWorks is a unit of military scientists and engineers that develops laser system prototypes for AFRL, from beginning concept to product field testing.

What's next?

The National Institute of Justice recently awarded ScorpWorks \$250,000 to make an advanced prototype that will add an eye-safe laser range finder into PHaSR.

Systems such as PHaSR have historically been too powerful at close ranges and ineffective but eye-safe at long ranges. The next prototype is planned to include the addition of the eye-safe range finder and is planned for completion in March 2006.

Source: Ms. Eva D. Blaylock/Air Force Research Laboratory PA



"I slept and dreamed that life was beauty.
I awoke — and found that life was **DUTY**."

— Ellen Sturgis Hooper
Author

Airman 1st Class Jesse Shipps / 355th CS

intercom

Journal of the Air Force C4ISR community ★ February 2006

remote & austere comm

► Keflavik's 3As keep mail moving in Iceland ► Wolfpack Comm poised on the peninsula
► Tactical, deployable ATCALS ► Making an impact: Kandahar Comm